

# New SPOT Program

Tutorial

# General Purpose/Requirements

The purpose of the New Spot Webpage is to build upon the functionality of the existing spot page, and incorporate these new general requirements:

- One consolidated web presence
- Google mapping interface
- All hazard applicable
- Relational database

# New Front Page of NWS Spot 2.0

## Spot Forecast Request

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## Incident and Decision Support Forecast Request

This site is the National Weather Service interface to requesting, filling, and monitoring spot forecasts issued by our Forecast Offices and National Centers.

**Submit  
Spot  
Request**

### Interactive Request:

Request a spot forecast using an interactive map, with or without a Lat/Lon of the incident.

**Monitor  
Spot  
Forecasts**

### Monitor:

Use this to monitor existing spot requests and forecasts.

[Click here for support or feedback](#)

# Front Page Changes

- User now accesses **ONE** national page.
  - Eliminates need for 122+ start pages
  - Ensures correct office gets request
  - User can monitor areas covering multiple forecast areas

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# New Submit Spot Request

Step 1: Establish incident location using A or B below.

**A. Set request location using nearest street address.**

**Note 1:** Valid entries are street address, zip code, city, state, or latitude & longitude.

**Note 2:** Latitude & Longitude will return the nearest street address. For exact latitude and longitude points use Step B entry below.

**Note 3:** City, State, and Zip Code will return a geographic centers.

Enter Location

PLOT ADDRESS

- OR -

**B. Set request location using latitude & longitude, USNG, or the map pointer below.**

**Note 1:** If the map below does not appear you may enter your decimal Lat/Lon below.

**Note 2:** To start over click the Reload button on your Web Browser.

**Note 3:** Latitude, Longitude information should be entered in WGS84/NAD83 coordinates in order to ensure accurate forecast locations.

**Decimal Degree Latitude, Longitude**  
West Longitudes Are Negative  
Example: 25.6319 - 80.2025

39.1189, -94.5207

PLOT

**United States National Grid (USNG)**  
Valid for points between 84N and 80S Latitude  
Require 13 character grid - 10 meter precision  
Example: 18SUJ23480647

15S UD 6853 3107

PLOT

**Degree, Minute, Seconds**  
Can accept decimal minutes as an input  
Example: 25 deg 19 min 23 sec W

39 deg 7 min 8 sec N  
94 deg 31 min 15 sec W

PLOT

**Elevation**

Latitude & Longitude value used to determine elevation.  
If elevation data is in error, changes can be made  
on the second page of this spot request.

891 FT



# Incident Location

- Uses Google Map functions for the user to ***drag and drop*** marker to spot location, including zoom capability.
- Three geographic location boxes will prefill based on placement of marker:
  - Lat/Lon – Decimal Degrees
  - Lat/Lon – Deg/Min/Sec
  - U.S. National Grid Coordinates
- The user can also enter this information manually using format of choice.
  - Other two boxes will prefill, and map will zoom to help refine location if needed.
- Disclaimer statement (Note 3) alerts user that if the lat/lon is not entered in **WGS 84/NAD 83** the location of the spot may be incorrect.

# Importance of Incident Location

- Important for customer to get location right, so the right forecast office gets the request.
- The new Spot web page will now determine which forecast office is responsible for the request.
- Fire Weather Area of Responsibility (AOR) boundaries are used for fire type requests.
- County Warning Area (CWA) boundaries are used for all other requests.



# New Submit Spot Request

**Step 2: Select the incident type for the request.**

Set Incident Type

Fire

☒ Wildfire ☐ Prescribed Fire

Hazardous Materials

☐ HAZMAT Land ☐ HAZMAT Inland Waterway

Search and Rescue

☐ SAR Land ☐ SAR Water

☐ Marine

☐ Other (Volcano, Earthquake, Special Event)

☐ Check to send TEST message only

**Step 3: Proceed to detailed incident request form.**

After setting your location and incident type above, click on the  
'Generate A Spot Request'  
button below to proceed to the SPOT request form.

Generate A Spot Request

# Submit Spot Request Changes

- New step is to select the incident type like “Wildfire” or “HAZMAT Land”.
- Selection is important because it determines what weather elements will be offered to the customer on the next page of the request form.
- This is a major enhancement over the old page. For example, marine elements are not needed for wildfire requests.

# Submit Spot Request - Page 2 (top)

## Spot Forecast Incident Type: Wildfire

### Spot Request Contact Information

(\*) PROJECT NAME:

For NWS Spot forecast policy,  
see section 4.0 in NWS Instruction 10-401 at:  
<http://www.nws.noaa.gov/directives/010/010.htm>

(\*) Requesting Agency:

(\*) Requesting Official:

(\*) E-mail address:

(\*) Phone number:

Phone Extension:

Contact Person:

FAX number:

### Location

(WGS84 / NAD83 preferred)

(\*) Latitude:

7.5' Quad:

(\*) Longitude:

TOP

BOTTOM

Elevation:

Feet

Feet

(Elevation preferred in feet)

### Fire Weather Supplemental Information

Drainage:

Size:

(in Acres)

Aspect:

Fuel Type:

### Sheltering

☐ Full ☐ Partial ☐ Unsheltered

# Submit Spot Request Notes

- When the Submit button is pressed, page two of the form appears.
- This form is tailored by the responsible forecast office per requested incident type. A WFO can configure the offered forecast formats, time steps, and forecast elements.
- Required fields are highlighted in red.
- Top section added a field for email address.
- The **Fire Weather Supplemental Information** section shown in the example will disappear for non-fire requests.

# Spot Request

- Required fields are highlighted in red.
- There is a “Deliver Forecast” time and a “Forecast Starting” time.
  - Note - “Forecast Starting” time can only be within 24 hours of “Deliver Forecast” time.
- To request recurring spot forecasts, the customer must contact the WFO.
- A WFO can configure the offered forecast formats, time steps, and forecast elements. Therefore, the forecasts formats and elements may not be consistent for all locations.

# Submit Spot Request - Page 2 (middle)

**Forecast Information**

**DELIVER FORECAST**  
Date : 06/11/2014  
Time : As Soon As Possible ▼

**FORECAST STARTING**  
Date : 06/11/2014  
Time : 16:00 ▼

**TIMEZONE**  
(Local Time)  
MOUNTAIN ▼

2 Hr ▼

2 Hr ▼

2 Hr ▼

Narrative ▼

FORECAST FORMAT

Tabular Time  
Table Interval

This Afternoon	Tonight	Thursday	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sky/VWeather <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max/Min Temperature <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max/Min Humidity <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wind (20 FT) <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chance of Wetting Rain <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lightning Activity Level <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ridge Top Winds <input type="checkbox"/>

**NOAA Hysplit Model**

Would you like to include a run of the Hysplit Model with this request? If so please verify your email address above as this will be used to send you the hysplit model run.

☐ YES  
☒ NO

**Remarks**

# Submit Spot Request Notes

- Weather Elements requested section has been considerably revamped.
- Forecast Deliver date/time has been added. Users can get forecasts ASAP or enter in when the forecast is needed.
  - An STQ will be created for a request when the Forecast Deliver time is within the next 6 hours.
- Ignition date/time has been replaced with the Forecast Start date/time.
  - Note - "Forecast Starting" time can only be within 24 hours of "Deliver Forecast" time.
- The first forecast period will be dynamic based on the Forecast Start Time. For example "today", "tonight", "this afternoon", etc.



# Submit Spot Request Notes

- Customer can now select the following (dependent on what responsible WFO offers):
  - Forecast format - Narrative only, both Narrative and Tabular, and Tabular only
  - Tabular time interval for each period (if applicable)
- Each incident type has a required minimum set of forecast elements that must be offered
  - Additional elements may be offered by the WFO and can vary based on incident type
- Easier to select/deselect weather elements by period and by weather element.
- Added the ability to request the Hysplit model output.

# HYSPLIT Feature

- There is a radio button on the Spot Request page to request a HYSPLIT Trajectory run.
- The HYSPLIT model will run per its current defaults in the current spot webpage.
  - NAM 12
  - Static levels of 500, 1500 and 3000 AGL
  - Trajectory run based on ignition time only
- The output is emailed to the address input at the top of the request form.
- There may be more options available to customize these runs in the future.

# Fire Forecast Elements

- **Fire Core elements (selectable by the user by forecast period):**
  - Sky/Weather
  - Max/Min Temperature
  - Max/Min Humidity
  - Wind (20 FT)
- **Prescribed Fire Core elements (selectable by the user by forecast period):**
  - Sky/Weather
  - Max/Min Temperature
  - Max/Min Humidity
  - Start Temperature
  - Start Humidity
  - Wind (20 FT)
  - Start Winds

**\*NOTE:** For Fire and Prescribed Fire, regardless of what the user selects, GFE formatters will produce forecasts of Sky/Weather, Max/Min Temperature, Max/Min Relative Humidity, and Winds for 3 periods as required by NWS Directive 10-401 4.3.2. All other elements are selectable by the user by forecast period.

# Hazardous Materials Elements

- **HAZMAT Land Core Elements**

- Sky/Weather
- Max/Min Temperature
- Max/Min Humidity
- Wind
- Dew point
- Probability of precipitation

- **HAZMAT Inland Waterway Core Elements**

- Sky/Weather
- Max/Min Temperature
- Max/Min Humidity
- Wind

- All elements are selectable by the user by forecast period.

# Search and Rescue Elements

- **SAR Land Core Elements**
  - Max/Min Temperature
  - Max/Min Humidity
  - Wind
  - Dew point
  - Probability of precipitation
- **SAR Water Core Elements**
  - Sky/Weather
  - Max/Min Temperature
  - Max/Min Humidity
  - Wind
  - Significant Wave Height
- All elements are selectable by the user by forecast period.

# More Elements

- **Marine Core Elements**

- Sky/Weather
- Max/Min Temperature
- Max/Min Humidity
- Wind
- Significant Wave Height

- **“Other” Core Elements**

- Sky/Weather
- Max/Min Temperature
- Max/Min Humidity
- Wind

- All elements are selectable by the user by forecast period.

# Submit Spot Request - Page 2 (bottom)

## Observations

(\*) When submitting an observation, the yellow fields are required in addition to at least one weather element.

WX OB 1	WX OB 2	WX OB 3	WX OB 4
(*) Site: <input type="text"/>	(*) Site: <input type="text"/>	(*) Site: <input type="text"/>	(*) Site: <input type="text"/>
(*) Date: <input type="text"/>	(*) Date: <input type="text"/>	(*) Date: <input type="text"/>	(*) Date: <input type="text"/>
(*) Time: <input type="text"/>	(*) Time: <input type="text"/>	(*) Time: <input type="text"/>	(*) Time: <input type="text"/>
(*) Elev: <input type="text"/>	(*) Elev: <input type="text"/>	(*) Elev: <input type="text"/>	(*) Elev: <input type="text"/>
Wind Dir: <input type="text"/>	Wind Dir: <input type="text"/>	Wind Dir: <input type="text"/>	Wind Dir: <input type="text"/>
Wind Spd: <input type="text"/>	Wind Spd: <input type="text"/>	Wind Spd: <input type="text"/>	Wind Spd: <input type="text"/>
Temp: <input type="text"/>	Temp: <input type="text"/>	Temp: <input type="text"/>	Temp: <input type="text"/>
WB: <input type="text"/>	WB: <input type="text"/>	WB: <input type="text"/>	WB: <input type="text"/>
RH: <input type="text"/>	RH: <input type="text"/>	RH: <input type="text"/>	RH: <input type="text"/>
Td: <input type="text"/>	Td: <input type="text"/>	Td: <input type="text"/>	Td: <input type="text"/>
Sky: <input type="text"/>	Sky: <input type="text"/>	Sky: <input type="text"/>	Sky: <input type="text"/>
Wc: <input type="text"/>	Wc: <input type="text"/>	Wc: <input type="text"/>	Wc: <input type="text"/>
Rmks: <input type="text"/>	Rmks: <input type="text"/>	Rmks: <input type="text"/>	Rmks: <input type="text"/>

## Submit Spot Request

Clicking the button below will create a one time spot request.

This request will be processed and a forecast will be generated by the servicing forecast office at the time they receive the spot request.

At any time until the expiration of this forecast, another immediate spot request may be generated off of the original request. Additionally, the immediate spot request can be converted into a scheduled request by contacting your servicing forecast office.

Submit Request



# Submit Spot Observation Notes

- Observation entry is a bit more standardized with the use of dropdown menus.
- Pressing the submit button will send a STQ notification message to the WFO just like the old web page did.

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# New Monitor Spot Forecasts

## NWS Spot Forecast Monitor



### Submit New Spot Request



### Spot Monitor Legend

- W = Wildfire
- P = Prescribed
- H = Hazmat
- S = SAR
- M = Marine
- Completed
- Pending
- Question

Permalink for page bookmark

### Active Spot Forecasts

Name	Type/Start Time	Status	WFO	Actions
Example	Wildfire	Request pending	BYZ	Submit Obs
TEST Process	Wildfire	Request pending	BYZ	Submit Obs
TEST Process 2	Wildfire	Request pending	BYZ	Submit Obs
TEST - Month Day	Wildfire	Request pending: Question asked	BYZ	Submit Obs
Test - New NWS Spot	Wildfire	Request pending	BYZ	Submit Obs

# Monitor Spot Forecasts Map

- Significant overhaul of this page.
- In the current Spot, every Forecast Office has their own page. In the new Spot, each user can set the area they want to monitor by zooming. The monitor area can include areas of responsibility of multiple Forecast Offices.
- Map uses Google API, so anyone can zoom in and out/shift map.

# Monitor Spot Forecasts Table

- Current Spot only lists requests on one calendar day.
- New Spot Monitor has all incidents on one page. When an incident is finished, then the incident will be closed by the forecast office.
- Closing an incident will move all information and forecasts into an archive.

# Monitor Spot Forecasts Notes

- On the current Spot, multiple requests for the same incident would clutter up the display with multiple lines.
- On the new Spot, there will only be one line per incident. Only the latest forecast will be available.
- Requests can be corrected from the Monitor Spot Forecasts page via “Change Request.”

# Monitor Spot Forecast – Submit Obs

- A “Submit Obs” link has been added for each incident in the table in the “Action” column.
- This allows customers to enter observations for an incident without having to submit a new request.
- All observations for the incident will be databased and available to the forecaster.
- Forecasters will not need to look at multiple requests to analyze observations.



# New Spot Forecast Page

## Example

### Wildfire

Forecast Start Time: 2014-06-11 4:00 PM MDT

Request Time: 2014-06-11 4:30 PM MDT

Forecast Complete At:

Requested By: NWS

Contact: Virgil Middendorf

Phone: 406-652-0851 ext 235

Fax: 406-652-1909



Location Legal:

Lat/Lon: 45.8325 / -108.444

Quad:

Calculated: 45.8325 / -108.444

Elevation: 3162

Drainage:

Aspect: Flat

Size: 1

Fuel Type: Grass (partial)

#### Observations

Site	Date	Elev	Wind	Temp	V/B	RH	Td	Sky	V/x	Rmks
------	------	------	------	------	-----	----	----	-----	-----	------

No observations available

#### Requested Parameters

X X X . Sky/Weather  
X X X . Max/Min Temperature  
X X X . Max/Min Humidity  
X X X . Wind (20 FT)  
X X X . Chance of Wetting Rain  
X X X . Lightning Activity Level  
. . . . Ridge Top Winds

#### Remarks

test

#### Forecast:

Not Yet Completed

**NWS Actions:** Ask Question Initialize Forecast

[Back to Forecast Monitor](#) [Change Request](#) [Copy Info to Spot Request for a New Incident](#) [Copy Info to New Spot Request for this Incident](#) [Delete Request](#)

NWS Actions will appear for responsible WFO (or back-up) only. These will not appear for customers.

# Spot Forecast Page Notes:

- Maps now use Google API interface.
- *All* Observations submitted for an incident will be listed on the Spot Forecast page.

# New Forecast Page

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Please Provide Feedback:

Send Feedback

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**NWS Actions:** [Correct Forecast](#)

[Printer Friendly Version of Forecast](#)

[Back to Forecast Monitor](#) [Copy Info to Spot Request for a New Incident](#) [Copy Info to New Spot Request for this Incident](#) [Delete Request](#) [Request Immediate Forecast Update](#)

**\*NEW!**

**\*NEW!**

# Forecast Page – Immediate Forecast Update

- New Action: “Request Immediate Forecast Update” link on bottom of forecast page.
- If a customer realizes that the forecast is not representative of current conditions, then they would click this link to get an immediate updated forecast.
- If an NWS forecaster realizes the forecast is not representative or will become unrepresentative, they would click this link to start the process of updating the forecast.

# Forecast Page – Immediate Forecast Update

- The customer, not the NWS forecaster, will be allowed to edit the information related to the request.
- There will be, however, an opportunity to enter in new observations. If the customer realizes that the forecast is off, then it would be nice to submit an observation that would help the NWS create a new forecast.

# Forecast Page – Copy Info

- There are now 2 different “Copy Info” options:
  - Copy Info into Spot Request for New Incident
    - Customers use this link to retain all of the their contact information for a specific incident type, but request a spot for a new and separate incident.
  - Copy Info into New Spot Request for this Incident
    - The customer will use this link to get another forecast for the same incident. Unlike “Request Immediate Forecast Update”, the customer will get Page 2 of the request process. Weather elements can be adjusted and the forecast delivery date/time can be changed, etc.
    - This allows customers to easily schedule the next needed forecast for an incident without having to re-enter most of the information.
    - Allows new observations submitted to remain with the request.
    - The lat/lon of the incident cannot be changed with this

# Experimental Service Comments

Comments on the New Experimental Spot Webpage  
are being collected at:

[www.nws.noaa.gov/survey/nws-survey.php?code=SPOTWEBPAGE](http://www.nws.noaa.gov/survey/nws-survey.php?code=SPOTWEBPAGE)

from June 1 – December 31, 2015.



# Additional Requirements are Being Considered for Future Versions of the Spot Webpage:

- Add the ability to email a copy of the forecast.
- Subset distinction of prescribed fire (i.e. pile burns, broadcast burns)..*The idea is that this distinction would be made on the second page after the user selects prescribed fire.*
- Build a web interface to add an element to the optional list of forecast elements in the CMS database.
- Have the spot program be connected with the radar and lightning data sets (via AWIPS) so that forecasters are alerted when thunderstorms approach the spot request site.
- Add the ability to select different models and trajectory levels for the HYSPLIT trajectory runs.
- Add the ability to select particular elevation levels for specific weather elements to help reduce the elements list (winds aloft, ridgetop winds, mid-level Haines Index, etc.)